

REMARKS

This Response is submitted in reply to the non-final Office Action mailed on December 3, 2008. No fee is due in connection with this Amendment. The Director is authorized to charge any fees that may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-442 on the account statement.

Claims 1-15 and 21 are pending in this application. Claims 16-20 were previously withdrawn. Claim 21 is allowed. In the Office Action, Claims 4-11 are objected to; Claims 1-2 and 12-15 are rejected under 35 U.S.C. §102; and Claims 1-3 and 12-15 are rejected under 35 U.S.C. §103. In response, Claims 2-3, 12-15 and 17-20 have been amended, Claims 4-11 have been canceled, and Claims 22-29 have been added. No new matter has been added. In view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

Claims 1-2 and 12-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by the publication to Beckett ("*Beckett*"). Applicants respectfully disagree with and traverse this rejection for at least the reasons set forth below.

Independent Claim 1 recites, in part, subjecting a powdery mass to an elongational flow to break up agglomerates and intimate interactions of the solids with the fat. Independent Claim 16 recites, in part, a device for reducing the viscosity of a fat based mixture comprising a die assembly comprising at least one die plate with a plurality of holes. In contrast, *Beckett* fails to disclose or suggest every element of independent Claims 1 and 16.

Devices for conching a chocolate refined mass have been developed for decades based on the principle of producing high shear flow on the mass by rotary means such as stripping elements, arms or vanes revolving along an inner surface of large containers. For instance, a conventional device for conching consists of three axis-parallel cylindrical upwardly open chambers. There is a central main chamber with the largest diameter and two lateral subsidiary chambers. The three chambers merge into one another thereby forming the conche container. Mixing tools are disposed in each chamber on driven shafts. In general, high shearing and compression are both formed between the moving stripping tool and the static surface of the

chambers. Due to the size to surface volume ratio of the known conching systems, only a small amount of chocolate mass is sheared at one time. Even while providing high shearing flow, the transition of the chocolate flake to the desired finished rheology is a time consuming process. Furthermore, the industrial conching machines occupy a considerable floor space in the factory and hence, the capital cost of these machines is very high. As a result, while a conventional conching device is very important in the chocolate making process, it is a very inefficient mixer.

Applicants have surprisingly found that the desired rheological attributes of a chocolate or chocolate-like mass can be achieved in a more effective way. For instance, the breaking up of agglomerates and pasting of the powdery fat based mass can be obtained more quickly and in a more economic manner by applying an elongational flow (e.g. through a die plate) as opposed to a predominant shear action on the starting confectionery mass as has customarily been done in a shear mixer such as a traditional conche.

In embodiments of the claimed invention, a predominant elongational flow is achieved by forcing a flow of a fat based mixture through a plurality of flow constrictions positioned in parallel and/or series relative to the flow. In a normal conche, only a small portion of the agglomerates is submitted to the shear at a time, whereas the rest of the agglomerates usually move out of the way of the shearing zone. Therefore, a long time is required before all the agglomerates have been spread by the shear created along the walls of the conche. In contrast, by using the claimed invention, the agglomerates cannot escape because the entire fat based mixture must traverse constrictions and is thereby exposed to a substantially equivalent elongation effect.

Beckett fails to disclose or suggest subjecting a powdery mass to an elongational flow as required by independent Claims 1 and 18. *Beckett* also fails to disclose or suggest a die assembly comprising at least one die plate with a plurality of holes as required by independent Claim 12. Instead, *Beckett* is entirely directed to convention conching devices and methods involving mixing elements such as stirring paddles or arms that provide shear forces to a chocolate mass. See, e.g., *Beckett*, Figures 9.2, 9.4 and 9.6. Nevertheless, *Beckett* fails to disclose or suggest any die plates that provide elongation flow to a powder mass in accordance with the present claims. Moreover, the Patent Office has not even provided any specific elements in *Beckett* that

corresponds to the aforementioned elements of independent Claims 1 or 16. For at least the reasons discussed above, Applicants respectfully submit that independent Claims 1 and 16, along with the claims that depend from Claims 1 and 16, are novel, nonobvious and distinguishable from the cited reference.

Accordingly, Applicants respectfully request that the rejection of Claims 1-2 and 12-15 under 35 U.S.C. §102 be withdrawn.

In the Office Action, Claims 1-3 and 12-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Beckett*. Applicants respectfully submit that *Beckett* fails to disclose or suggest every element of independent Claims 1 and 16 as previously discussed. As a result, independent Claims 1 and 16, along with the claims that depend from Claims 1 and 16, are novel non-obvious and distinguishable over *Beckett*.

In the Office Action, Claims 4-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, new Claims 22-29 have been added and effectively represent the subject matter as defined in Claims 4-11, respectively, in allowable form as suggested by the Patent Office.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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